

**PEAK LOAD REDUCTION/
ENERGY EFFICIENCY PROGRAM
FOR WATER/WATEWATER
FACILITIES**

APPLICATION



Administered by:
HDR Engineering, Inc.
271 Turnpike Drive
Folsom, CA 95630

On behalf of the
California Energy Commission
1516 9th Street
Sacramento, CA 95814

November 29, 2001

INTRODUCTION

As a result of rolling blackouts during the fall and winter of 2000, the State made incentive funds available to water and wastewater districts for peak load reduction and energy efficiency projects (AB-970). These funds were quickly oversubscribed, leaving numerous qualifying projects without funding.

A limited amount of additional funding has become available on a FIRST COME, FIRST SERVED basis. Similar application and grant guidelines will apply. HDR Engineering, Inc. is the program administrator.

NOTE: Applications must be RECEIVED by HDR Engineering no later than **4PM January 31, 2002**.

ELIGIBILITY

Who Is Eligible?

Public water system and wastewater treatment plant owners and administrators are eligible.

A public water system is a system that provides piped water to the public for human consumption and that is permitted by the California Department of Health Services to operate as a public water system or community water system.

A wastewater treatment plant is either a facility owned by a state, local, or federal agency, or a privately owned facility used in the treatment of sewage and industrial wastes including collection systems.

Investor-owned utilities (IOU's) may not apply for incentive funds and may not serve as a prime contractor. IOU's may, however, work with their customers and assist them in program participation.

FUNDING

This program provides incentive funding for efficiency projects that reduce the summer peak load. In order to encourage applicants to complete their projects before summer 2002, the reimbursement will be made based on the project completion date as follows:

May 31, 2002: \$300/kW.
June 1 - December 31, 2002: \$250/kW.

The incentive amount will not exceed the cost of the project.

As examples, consider the following:

Example #1

Project: Repair leaks in the compressed air system and replace two 60 hp rotary air compressors that operate throughout the peak period with compressors totaling 25 hp.

Existing motor demand: 40 kW
New motor demand: 17 kW
Peak reduction: 23 kW
Cost of installation: \$10,125

Incentive award: $23\text{kW} \times \$300 = \$6,900$

In this example the project cost exceeds the maximum incentive of \$300/kW. Therefore, the incentive only covers \$6,900 of the total \$10,125 project cost.

Example #2

Project: Install an energy management system to monitor and control electrical demand in a wastewater treatment facility.

Estimated demand reduction: 120 kW
Estimated installation cost: \$26,000

Max Incentive: $\$300/\text{kW} \times 120\text{kW} = \$36,000$
Incentive Award: \$26,000

In this example, the project does not exceed the maximum incentive of \$300/kW. Therefore, the incentive will cover the entire project cost.

Example #3

Project: Install microturbines with heat recovery to burn waste digester gas. Utilize this waste heat to heat the digester.

Demand reduction (electricity generated): 90kW
Estimated installation cost: \$90,000

Incentive Award: $\$300/\text{kW} \times 90\text{kW} = \$27,000$

WHAT QUALIFIES FOR FUNDING?

This program element will fund retrofits of water and wastewater pumps and related equipment, and installation of energy control systems designed to reduce electricity consumption from the grid during periods of peak electrical demand. Projects must achieve a general energy efficiency condition that will lower the summer electrical demand from June 1 through September 30, from 2 to 6 p.m. on non-holiday weekdays. Eligible projects can include replacing or retrofitting pumps or other energy using or energy recovery equipment with more energy efficient systems or equipment. Use of waste gas to generate electricity also qualifies under this program. The cost of control systems, engineering design and analysis of proposed projects, project commissioning and testing, and programming changes to control systems are also eligible.

- An application may include more than one project.
- The projects must reduce California peak electrical demand.
- All projects at any one site must be included in one application. If an applicant owns more than one site, or has control and the legal authority to make decisions for more than one site, you are encouraged to aggregate all sites into one application. You may not aggregate projects or sites into one application if you do not own or have control over the facility, equipment, or site.
- The project must continue to reduce peak electrical demand from June 1 – September 30 for a minimum of three years from its completion date.
- The project must have an isolated and measurable peak electrical demand reduction.
- The project must comply with all applicable environmental, contracting, and construction laws and regulations and in accordance to all local, state, and federal codes.

WHAT DOES NOT QUALIFY FOR FUNDING?

- Proposals that describe activities, which rely solely on actions by facility staff or other persons without some physical change to the plant, are ineligible.
- Generation projects using fossil fuels are not eligible.
- Project approved for funding under other state or IOU programs are not eligible.
- Equipment purchased and studies or engineering services completed prior to the application are not reimbursable.

THE APPLICATION

How Do I Apply?

1. Complete and sign the attached application form.
2. Attach all requested information to the application.
3. Submit one signed original (signed in ink and clearly marked original) application and all supporting documentation to:

HDR ENGINEERING, INC.
Attention: SB 5X Administrator
271 Turnpike Drive
Folsom, CA 95630

When Do I Apply?

Applications will be accepted on a first-come, first-served basis. Applications will be accepted until Thursday, January 31, 2002 at 4 PM.

Applications must be RECEIVED by the deadline. Applications post marked by the deadline but received afterwards will be rejected. Faxed or e-mail applications WILL NOT be accepted.

REVIEW PROCESS, DISBURSEMENT & REPORTING

What Is the Application Review and Approval Process?

1. Upon receipt, the application will be stamped with the time and date to document the order in which it was received.
2. The application shall then be reviewed for technical and administrative completeness. To be deemed complete the application must be accompanied by a certified engineering analysis and all other documents listed on the application form. If the application is not complete, additional information will be requested in writing. If the additional information is not received within the time specified in the written request, the application will be rejected. Applicants should retain a copy of their application, as no applications will be returned. When the application is complete, it will be recorded as "received," and will continue in the review and selection process.
3. Complete applications will then be reviewed to determine if both the applicant and the proposed project meets the eligibility requirements.
4. The technical feasibility and the engineering analysis will then be reviewed to verify the accuracy of assumptions and calculations. If there are questions regarding the technical details of the application, the applicant will be asked to clarify, modify, or change the application. The applicant must respond to the concerns in writing. Should an application be found ineligible from a technical basis, the applicant may submit another project. However, the subsequent application(s) will be treated as a new application received on a first-come first-served basis.
5. Applications will be forwarded for approval and award once all technical completeness and accuracy concerns have been satisfied.
6. Award contracts will be prepared for approved applications. Applicants shall be notified by phone and in writing of their acceptance. The award packages will be mailed to recipients for

signature. Terms and Conditions of the Award Contract can be found at the end of this Application.

7. Once approved, the Award Agreement with all required documents must be signed and returned. When the recipient is a county, city, district, or other local public body, the recipient must provide an original signed resolution (or copy with original signed certification), order, motion, or ordinance of the local governing body, which, by law, has authority to enter into the funding award. This document must authorize the recipient to enter into the funding award and designate an authorized representative to execute all necessary agreements to implement and carry out the purposes of the award. Signed contracts must be returned to the Program Administrator within 5 working days.
8. Applicants WILL NOT be reimbursed for expenses incurred before the award contract has been executed (signed by both parties) nor will funds be disbursed before a signed Resolution has been received.

How Will the Funds Be Disbursed?

Funds will be disbursed upon successful completion of the project. Successful completion of the project requires the following:

1. The equipment to be properly installed in accordance with the manufacturer's directions and all applicable codes.
2. The successful startup and testing of the affected system(s).
3. Acquisition of all applicable permits.
4. Submission and approval of all monthly and final reports and all other supporting documents as specified in the award contract.

Payment will be made after the Administrator has reviewed the Final Report and verified receipt of all documentation supporting the project's cost. Supporting documentation includes copies of paid invoices or receipts for equipment, engineering, and construction services.

What Are the Reporting Requirements?

All recipients will be required to submit monthly progress reports to Program Administrator. The progress reports shall contain at a minimum the following information:

1. Status of work, including an indication of overall progress compared to the expected schedule and goals;
2. Any completed deliverables (products) as identified in the funding award agreement;
3. A comparison of program expenses to date to the expected budget.

In addition, recipients will be required to complete a final report.

What If Construction Is Delayed?

Extensions may be permitted for applicants who, for means beyond their control, are unable to meet the project completion dates as stated in the Award Agreement. Extension requests must be submitted to the Program Administrator, in writing, detailing the reason for the delay and the new completion date. Approved extensions will be communicated in writing to the Recipient. Changing the project completion date may affect the incentive amount paid.

MEASUREMENT AND VERIFICATION

Recipients must agree to provide access to the project site and allow the Program Administrator or its representative to measure and verify the project's peak electrical demand reduction. This may include but is not limited to utility bills, metering data, facility equipment surveys, operational practices, and project costs, savings, and performance.

CONFIDENTIAL INFORMATION

Applications and proposals shall not contain confidential material. Any material in an application that is marked confidential automatically will be disregarded and returned to the applicant. The application will be evaluated without the confidential information. All applications submitted to the Administrator will be made public documents once the project selections are made.

RIGHT TO REJECT ANY OR ALL PROPOSALS

It is the policy of the Administrator not to solicit proposals unless there is a bona fide intention to make awards. However, the Administrator reserves the right to reject any or all proposals, to modify this application as needed upon written notice, or to cancel the solicitation.

ADDITIONAL FUNDING SOURCES

Additional funds to cover project costs beyond those covered by the incentive funds are available from the Energy Conservation Assistance Account (ECAA) administered by the California Energy Commission. This program offer 3% loans to Cities, Counties, Special Districts, and Public and Non-profit schools, colleges, hospitals, and public care institutions. Information on the loans and applications can be obtained from the California Energy Commission's website:

www.energy.ca.gov/peakload/index.html

QUESTIONS AND ADDITIONAL INFORMATION

If you have questions or need further information contact the Program Administrator:

by phone at: (916) 351-3842
by FAX at: (916) 351-3888
or by e-mail at: sb5x@hdrinc.com

APPLICATION FORM

APPLICATION FOR PEAK ELECTRICAL DEMAND REDUCTION PROGRAM

*This form must be filled out completely and signed by the applicant.
PLEASE PRINT OR TYPE.*

A. APPLICANT INFORMATION

Full Legal Name of Applicant: _____

Authorized Representative: _____

Title: _____

Street Address: _____

City: _____ State: _____ Zip Code: _____

Phone: (____) _____ Ext. _____ Fax: (____) _____

Federal Employers ID Number: _____ E-mail address: _____

Type of Organization(s) or Business(s) (check)

☐ Local Government

☐ Special District

☐ Other Public Entity

Other (specify): _____

Type of Facility(ies) (Check all that apply):

☐ Water Treatment Plant

☐ Well Site

☐ Collection System Pumping Station

☐ Booster Pumping Station

☐ Wastewater Treatment Plant

☐ Other: _____

Project Start Date: _____ Estimated Project Completion Date: _____

Total Peak kW Reduction: _____ Total Project Cost: \$ _____

Total Amount Requested: \$ _____

Short Description of Project: _____

To the best of my knowledge and belief, data in this application are correct and complete.

Name and Title of Authorized Signatory: _____

Signature: _____ Date: _____

Note: For a Public Entity, the Authorized Representative should be the person designated in their Governing Body's resolution. For a Private Entity, the Authorized Representative should be the President, Owner, General Partner or authorized designee (by original signed letter).

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B PROJECT DESCRIPTION(S)

Provide a sheet entitled “Project Description” for EACH project submitted in your application, numbering each project for reference. (i.e. Project #1 Booster Pump and VFD). Provide the information requested below and enough details including equipment data sheets, where appropriate, to adequately describe each project.

- A brief description of the existing equipment including at a minimum the:
size (hp) flow (gpm)
head (feet) annual hours of operation
brand (w/ model #) age (yrs)
- A brief description of the proposed equipment including at a minimum:
size (hp) flow (gpm)
head (feet) annual hours of operation
brand (w/ model #) age (yrs)
- Description of how the proposed project will decrease the peak electrical demand and/or reduce energy consumption accompanied by calculations used to determine the reduction. Documentation and field measurements necessary to support the calculations and assumptions made therein must be included and the description and calculations must be certified by a professional engineer licensed in the State of California.

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C. PROJECT BUDGET AND FUNDING REQUEST

Complete the following information for EACH project described in Section B above. Use the table to determine the maximum incentive for each project based on the completion date.

Completion Date	Incentive Funds
May 31, 2002	\$300/kW
June 1 – Dec 31, 2002	\$250/kW

Project #1 _____

Total Estimated Cost Project: \$ _____

Project Start Date: _____

Project Completion Date: _____

Existing Electrical Demand: _____ kW

Proposed Electrical Demand: _____ kW

Funds Requested (may not exceed total individual project cost): \$ _____
(See Table)

Project #2 _____

Total Estimated Cost Project: \$ _____

Project Start Date: _____

Project Completion Date: _____

Existing System Electrical Demand: _____ kW

Proposed Electrical Demand: _____ kW

Funds Requested (may not exceed total individual project cost): \$ _____
(See Table)

Project #3 _____

Total Estimated Cost Project: \$ _____

Project Start Date: _____

Project Completion Date: _____

Existing Electrical Demand: _____ kW

Proposed Electrical Demand: _____ kW

Funds Requested (may not exceed total individual project cost): \$ _____

APPLICATION FORM

D. ATTACHMENTS

If your project is selected for incentive funding, the **Work Statement & Schedule** and **Budget** attachments, as presented in this application and revised in negotiations with the Administrator, if necessary, will become part of the Award Agreement. This Agreement is a legal document that lays out the terms and conditions of the Award. Recipients must submit electronic copies of the attachments for this purpose. To expedite the project, carefully draft these sections and follow the format in the samples included in this document.

Attachment 1. Work Statement & Schedule

Prepare the Work Statement & Schedule on Attachment 1 provided. Provide a clear and understandable Work Statement describing the specific tasks to be conducted including key milestones, products (if any), and schedule for conducting this project. . Provide a Work Statement & Schedule for EACH project in the application. Please schedule major milestones only (e.g. engineering, construction bidding, contract award, demolition, site work, electrical, equipment delivery, equipment installation, start-up, testing, permitting, and final report).

Attachment 2. Budget

Prepare the Budget on Attachment 2 provided. Complete a Budget for EACH project in the application. See Instructions and Example Budget.

Attachment 3. Governing Body Resolution

(Public entities only)

When the Recipient is a county, city, district, or other local public body, the Recipient must provide a signed resolution, order, or ordinance of the local governing body that by law has authority to enter into the agreement. This document must authorize the Recipient to enter into the award contract and designate an authorized representative to execute all necessary documents to implement and carry out the purposes of the award. This document need not be submitted with the application but it must be submitted prior to disbursed of any funds. Failure to submit a Resolution will result in forfeiture of funds. Please see Example Governing Body Resolution.

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E. APPLICANT CERTIFICATION

I certify to the best of my knowledge that the information contained in this application and in the supplemental information is correct and complete. I authorize HDR Engineering, Inc. as the Program Administrator to make any necessary inquiries to verify the information I have presented.

Signature of Authorized Representative

Date

Name: _____
(typed or printed) First M.I. Last

Title: _____

ATTACHMENT 1

WORK STATEMENT & SCHEDULE

Instructions: List the Tasks to be performed and the completion date. List sub-tasks as necessary to adequately describe each Task. Indicate any products resulting from a Task that will be submitted with the monthly progress report.

NOTE: It is not necessary to have a product for each task or subtask. However, any information such as reports, invoices, or other data of value to the Administrator should be listed as a product. The Administrator may add products to the Work Statement in preparing the Award Contract.

EXAMPLE:

TASK 1.	Engineering Services	
	2.1. Advertise Project.	Jan 15, 2001
	2.2. Award Engineering Contract.	Feb 15, 2001
	2.3. Receive Bid Documents (Plans & Specifications).	Mar 31, 2001
TASK 2.	Construction Services	
	2.1. Advertise Project.	Apr 15, 2001
	2.2. Award Engineering Contract.	May 15, 2001
	2.3. Start Construction.	May 31, 2001
	2.4. Complete Construction/Startup.	Jul 15, 2001
TASK 3.	Final Report	Jul 31, 2001

ATTACHMENT 2

BUDGET

Instructions: Provide a detailed budget of proposed expenditures. Funds must be used for projects described in the Work Statement. Please include all categories listed below, and only those categories in the following order. If your project has no budget in a category, put "\$0" in the budget column.

ENGINEERING: If appropriate, the cost to have project documents (specifications and drawings) produced.

CONSTRUCTION: Construction cost as bid including start-up and testing.

EQUIPMENT: This includes all equipment that will be directly (pre) purchased by the Recipient. Itemize the costs for each item purchased. DO NOT include equipment also covered under "Construction".

EXAMPLE:

Engineering	Specifications & Drawings, bidding & construction services	\$11,000
Construction	Mobilization, insurance, demolition, electrical, mechanical, equipment installation, start-up, testing, and permitting.	\$45,000
Equipment	Pre-purchase 50 hp pump and VFD	\$22,000
TOTAL		\$78,000

EXAMPLE GOVERNING BODY RESOLUTION
(For public entities only)

Resolution of _____

Resolution No. _____

WHEREAS, Incentive funds are provided through Senate Bill 5X to finance projects that will reduce peak electrical demand;

NOW THEREFORE, BE IT RESOLVED, that (*governing body*) authorizes (*name of public agency*) to apply for incentive funding from HDR Engineering, Inc., the fund Administrator, to (*description of project*).

BE IT ALSO RESOLVED, that if recommended for a funding award by the HDR Engineering, Inc., the (*governing body*) authorizes (*Name of Public Agency*) to accept a incentives up to \$__.

BE IT FURTHER RESOLVED, that (*title of official*) is hereby authorized and empowered to execute in the name of (*Name of Public Agency*) all necessary documents to implement and carry out the purpose of this resolution, and to undertake all actions necessary to undertake and complete the project.

Passed, Approved and Adopted this _____ day of _____, 200__.

Governing Board Members:

_____	_____
_____	_____
_____	_____
_____	_____